



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,632	06/08/2001	Leopold B. Willner	K35A0744	9356
35219	7590	03/23/2007	EXAMINER	
WESTERN DIGITAL TECHNOLOGIES, INC.			FLETCHER, JAMES A	
ATTN: SANDRA GENUA			ART UNIT	PAPER NUMBER
20511 LAKE FOREST DR.			2621	
E-118G				
LAKE FOREST, CA 92630				
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE		DELIVERY MODE	
3 MONTHS	03/23/2007		PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/877,632	WILLNER ET AL.	
	Examiner	Art Unit	
	James A. Fletcher	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 14 February 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-25, 28 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-25, 28, and 29 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 16 January 2007 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-14, 16-25, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al (6,868,225) in further view of Newman et al (6,154,600)

Regarding claim 1, Brown et al disclose an audiovisual system comprising:

- a system controller (Fig. 1, CPU 106);
- a storage device to store the portion of the audiovisual data and to play back the stored portion of the audiovisual data (Fig. 1, Hard Disk 105);
- a marking module to create metadata in response to a control input for marking the programs segments comprising information regarding the

- program segments of the stored portion of the audiovisual data (Col 3, lines 58-59 "Bookmarks are stored [and] retrieved for the user");
- a display generator to generate a mosaic representation of the program segments of the stored portion of the audiovisual data (Col 15, lines 43-44 "The invention places an indicator 1808 on the screen, indicating that a bookmark has been saved" and Col 20, lines 8-9 "index or bookmark indicators are displayed over the trick play bar");
 - wherein the mosaic representation comprises a plurality of cells representing respective stored program segments of a program (Col 14, lines 44-47 "The Now Showing screen 1701 is shown which has a list of programs 1705 that are displayed to the user in descending order with the most recently obtained program at the top of the list"); and
 - a program selector to select a program segment of the stored portion of the audiovisual data in response to a user input based on the information of the metadata, enabling the user to jump to and play back selected program segments of the plurality of programs (Col 15, lines 44-45 "The user can, at any time, access any of his bookmarks and continue viewing the program from the bookmark").

Brown discloses images providing the user with additional data regarding the recorded program segments of a program (Col 16, lines 53-62), but does not explicitly disclose those images as being extracted from the respective stored program segments.

Newman teaches an audiovisual recording and reproducing system comprising a menu of program segments comprising images extracted from the respective stored program segments (Col 15, lines 4-8 "the storyboard GUI 440 includes a shot tab 404 displaying icons 406 representing previously captured clips. The storyboard GUI 440 likewise includes a display window 408 to display an image from a clip referenced by a selected icon 410").

As taught by Newman, a representation of a video program segment using a representative image extracted from the video program segment is well known, providing the user with a visual reference to the visual elements of the segment and simplifying the user's process of deciding which segment to view.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Brown in order to include a representative image extracted from the video segment in an index of those video segments.

Regarding claim 2, Brown et al disclose an audiovisual system comprising a personal video recorder (TiVo, the assignee, is known as a manufacturer of PVRs).

Regarding claim 3, Brown et al disclose an audiovisual system wherein the storage device comprises a read/write, random-access, non-volatile storage media (Fig 1, Hard Disk 105).

Regarding claim 4, Brown et al disclose an audiovisual system wherein the metadata comprises user-generated modifications to pre-existing metadata (Col 5, lines 47-52 "when the parser 401 sees a private data event, it directs the byte stream to the private data DMA engine 404 and directs an event to the event buffer 413. The Media

Switch notifies the program logic via an interrupt mechanism when events are placed in the event buffer" and Col 1, lines 53-55 "The system allows a user to save and retrieve bookmarks for several audio and/or video programs on a single device").

Regarding claim 5, Brown et al disclose an audiovisual system wherein the pre-existing metadata is received by the audiovisual system with the audiovisual data (Col 6, lines 65-67 "The demultiplexer multiplexes the extracted audio, video and private data channel streams through the video input Media Switch port").

Regarding claim 6, Brown et al disclose an audiovisual system wherein the metadata is stored subsequently to the storing of the stored portion of the audiovisual data by the audiovisual system (Col 1, lines 58-60 "a bookmark function that allows the user to bookmark a program where he left off").

Regarding claim 7, Brown et al disclose an audiovisual system comprising a preference determination module, and wherein the control input comprises signals from the preference determination module (Col 14, lines 50-52 "The system's list is based upon the program preferences that the user has expressed to the system using the thumbs up and thumbs down ratings").

Regarding claim 8, Brown et al disclose an audiovisual system wherein the metadata comprises information indicating a level of interest by a user in the program segment starting from the corresponding program location (Col 14, lines 50-52 "The system's list is based upon the program preferences that the user has expressed to the system using the thumbs up and thumbs down ratings").

Regarding claim 9, Brown et al disclose an audiovisual system wherein the metadata comprises information indicating a category of the program segment starting from the corresponding program location (Col 23, lines 20-22 "The program guide information is sorted in different ways, e.g., all movies 2901, favorite channels 3001, all channels 3101, all sports, etc.").

Regarding claim 10, Brown et al disclose an audiovisual system wherein the category comprises the genre of the program segment starting from the corresponding program location (Col 23, lines 20-22 "The program guide information is sorted in different ways, e.g., all movies 2901, favorite channels 3001, all channels 3101, all sports, etc.").

Regarding claim 11, Brown et al disclose an audiovisual system wherein the metadata comprises information indicating an identity of a user (Col 2, lines 1-2 "Bookmarks within a single program can be set for different users").

Regarding claim 12, Brown et al disclose an audiovisual system wherein at least one cell comprises a fixed image (Col 13, lines 65-67 "Any temporal elements [e.g., names, icons, location indicators] are drawn onto the screen over the video loops").

Regarding claim 13, Brown et al disclose an audiovisual system wherein at least one cell comprises a video image (Col 5, lines 39-40 "when the parser 401 finds a video event, it directs the stream to the video DMA engine 402").

Regarding claim 14, Brown et al disclose an audiovisual system which provides to a user information regarding the program segments of the stored portion of the

audiovisual data (Col 21, lines 23-27 "the invention displays a program guide area 2801 to the user which is a list of the programs that are currently airing, was aired, or is scheduled on live TV") comprising:

- a storage device to store and play back a portion of the audiovisual data (Fig. 1 Hard Disk 105);
- a grid generator to configure for the user display the information regarding the program segments of the stored portion of the audiovisual data, the information derived from metadata corresponding to the program segments of the stored portion of the audiovisual data, the information provided to the user via the user display in grid format with a plurality of grid elements (Col 21, lines 46-48 "The invention displays the program guide information in two different modes: two column or three column"), each grid element representing a program segment of the stored portion of the audiovisual data (Col 21, lines 27-29 "The CPU 713 parses the program guide information and creates program schedule information"), each grid element independently selectable in response to a user input (Col 15, lines 5-8 "When the user presses on the right side of the button 1403 on the remote control 1401, a more detailed program information screen is displayed to the user"); and
- a program selector to select a grid element that represents a selected program segment of the stored portion of the audiovisual data in response to user input, the selected program segment selected based on the information derived from the metadata, whereby the audiovisual system selectively plays

back selected programs of the stored portion of the audiovisual data starting from selected program locations, thereby enabling a user to jump to and play back selected program segments of the plurality of programs (Col 15, lines 44-45 "The user can, at any time, access any of his bookmarks and continue viewing the program from the bookmark").

Brown et al show a grid of either rows or columns, but do not specifically disclose a grid of both a plurality of rows and a plurality of columns.

Newman et al teach an audiovisual system with a grid of selectable elements corresponding to the program segments of the stored portion of the audiovisual data with a plurality of both rows and columns (Fig. 10, items 406).

As taught by Newman et al, a grid displaying a plurality of both rows and columns of representative images from selectable video segments is well known, providing the user with a wide choice of selections of elements, and simplifying the user's decision making process regarding which element to select.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Brown et al in order to include a grid of images with a plurality of both rows and columns.

Regarding claim 16, Brown et al disclose an audiovisual system wherein at least one grid element comprises an icon which is representative of the program segment represented by the grid element (Fig. 24).

Regarding claim 17, Brown et al disclose an audiovisual system wherein at least one grid element comprises text which is representative of the program segment represented by the grid element (Fig. 24).

Regarding claim 18, Brown et al disclose an audiovisual system wherein the plurality of grid elements are chosen for display based on the metadata of the corresponding program segments of the stored portion of the audiovisual data (Col 23, lines 20-22 “The program guide information is sorted in different ways, e.g., all movies 2901, favorite channels 3001, all channels 3101, all sports, etc.”).

Regarding claims 19 and 21, Brown et al disclose an audiovisual system wherein the plurality of grid elements comprises grid elements chosen for display based on a second and third user input (Col 16, lines 12-14 “Specific remote control[s] can be set up so that different levels of parental controls are engaged for each remote control”).

Regarding claim 20, Brown et al disclose an audiovisual system wherein the plurality of grid elements are organized within the grid format in response to the metadata (Col 23, lines 20-22 “The program guide information is sorted in different ways, e.g., all movies 2901, favorite channels 3001, all channels 3101, all sports, etc.”).

Regarding claim 22, Brown et al disclose an audiovisual system wherein the plurality of grid elements are organized within the grid format based on the program from which each program segment is derived (Col 23, lines 20-22 “The program guide information is sorted in different ways, e.g., all movies 2901, favorite channels 3001, all channels 3101, all sports, etc.”).

Regarding claim 23, Brown et al disclose a method of playing back selected portions of stored audiovisual data stored on a storage device comprising:

- providing stored audiovisual data corresponding to a plurality of programs, each program comprising a plurality of program locations, each program location representing a starting point of a program segment of one of the plurality of programs (Col 16, lines 51-60 "The user can rotate through three different levels of banners, each successively containing more information about the program. The lowest level banner 2001 contains minimal information such as channel 2002, station ID 2003, and time 2004. The second level banner 2005 displays, in addition to the information in the minimal banner 2001, information such as program title 2006, duration 2007, program MPAA or TV rating 2008, and thumbs rating. The final level banner 2009 adds program text description 2010 to the second level banner 2005");
- creating metadata in response to a control input for marking the program segments comprising information regarding the program segments of the stored audiovisual data (Col 15, lines 35-38 "a user can watch the first half-hour of a two-hour program stored in the storage device 710 and then bookmark the program where he left off or he can place bookmarks within the program to mark points of interest" and lines 53-54 "A bookmark is placed in the same manner by pressing the select button 1406 to create a bookmark");

- displaying to a user the information regarding the program segments of the stored audiovisual data (Col 15, lines 42-44 "The invention places an indicator 1808 on the screen, indicating that a bookmark has been saved");
- receiving a user input indicating a selected program segment of one of the plurality of programs based on the information of the metadata (Col 15, lines 50-52 "the user can jump to a bookmark using the jump button 1414 on the remote control 1401" and Col 15, lines 44-45 "The user can, at any time, access any of his bookmarks and continue viewing the program from the bookmark"); and
- playing back the selected program segment starting from the corresponding program location of the stored audiovisual data, thereby jumping to and playing back selected program segments of the plurality of programs based on the metadata (Col 15, lines 44-45 "The user can, at any time, access any of his bookmarks and continue viewing the program from the bookmark").

Brown discloses images providing the user with additional data regarding the recorded program segments of a program (Col 16, lines 53-62), but does not explicitly disclose those images as being extracted from the respective stored program segments.

Newman teaches an audiovisual recording and reproducing system comprising a menu of program segments comprising images extracted from the respective stored program segments (Col 15, lines 4-8 "the storyboard GUI 440 includes a shot tab 404 displaying icons 406 representing previously captured

clips. The storyboard GUI 440 likewise includes a display window 408 to display an image from a clip referenced by a selected icon 410").

As taught by Newman, a representation of a video program segment using a representative image extracted from the video program segment is well known, providing the user with a visual reference to the visual elements of the segment and simplifying the user's process of deciding which segment to view.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Brown in order to include a representative image extracted from the video segment in an index of those video segments.

Regarding claim 24, please refer to Examiner's comments regarding claim 4.

Regarding claim 25, please refer to Examiner's comments regarding claim 7.

Regarding claim 28, please refer to Examiner's comments regarding claim 12.

Regarding claim 27, please refer to Examiner's comments regarding claim 13.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination as applied to claims above, and further in view of Yuen (6,240,241)

Regarding claim 15, Brown et al disclose an audiovisual system wherein at least one grid element comprises an image (Figs 22 and 24), but do not specifically disclose that the image is extracted from the program segment represented by the grid element.

Yuen teaches using representative images selected from the program in an index to help the user identify the program he is selecting (Col 1, lines 46-48 "A frame of the

video program that is recorded on tape is selected to be displayed with the directory in text form for one or more of the recorded programs").

As suggested by Brown and taught by Yuen, using an image from a file in an index is well known and commercially available, providing the user with a more useful index entry.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Brown in order to provide a representative image icon in the index grid.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fletcher whose telephone number is (571) 272-7377. The examiner can normally be reached on 7:45-5:45 M-Th, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on (571) 272-7950. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JAF
2 March 2007

J Grody
James J. Grody
Supervisory Patent Examiner
Art Unit 2621